CLAIMS

What is claimed is:

1. A polynucleotide comprising a sequence encoding an engineered zinc finger protein, the engineered zinc finger protein comprising 3 or more 2-finger zinc finger modules, wherein the 2-finger zinc finger modules are joined to each other by linkers of 6 or more amino acid residues, and further wherein the engineered zinc finger protein specifically binds to a target site in cellular chromatin such that expression of a single gene is regulated.

2. The polynucleotide of claim 1, wherein the target site comprises 18 base pairs

3. The polynucleotide of any of the preceding claims, further comprising a sequence encoding at least one functional domain.

4. The polynucleotide of claim 3, wherein the functional domain comprises a transcriptional activation domain.

5. The polynucleotide of claim 3, wherein the functional domain comprises a transcriptional repression domain.

6. The polynucleotide of claim 3, wherein the functional domain comprises a nuclease domain.

7. A polypeptide encoded by any of the polynucleotides of any of the preceding claims.

8. A method of modulating expression of a single gene in a cell; the method comprising the steps of:

administering a polynucleotide according to any one of claims 1-6 or a polypeptide according to claim 7 to the cell under conditions such that the zinc finger

protein binds to the target site in the cell, thereby modulating expression of the single gene.

9. The method of claim 8, wherein expression of the single gene is repressed.

10. The method of claim 8, wherein expression of the single gene is activated.